



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,061	10/31/2001	Beate Baumbach	Mo-6497/LcA 34,677	6469

157 7590 04/10/2003

BAYER POLYMERS LLC
100 BAYER ROAD
PITTSBURGH, PA 15205

EXAMINER

TSOY, ELENA

ART UNIT	PAPER NUMBER
----------	--------------

1762

5

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/016,061

Applicant(s)

BAUMBACH ET AL.

Examiner

Elena Tsoy

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-4** are rejected under 35 U.S.C. 102(b) as being anticipated by Flynn et al (US 5,229,252).

Flynn et al disclose a process for coating a substrate by applying to a substrate a coating composition (See column 1, lines 8-12) comprising A) an epoxy acrylate oligomer (See column 1, lines 66-67; column 3, lines 1-27) such as dimethacrylate of epoxy bisphenol A, which contains two (meth)acrylate groups (two ethylenically unsaturated groups) and isocyanate-reactive (hydroxyl) groups and which is free from isocyanate groups and blocked isocyanate groups (See column 3, lines 21-27; column 4, lines 16-18), B) a blocked polyisocyanate (See column 1, lines 1-3) such as Σ -caprolactam-blocked isophorone (which does not contain any ethylenically unsaturated groups) (See column 5, lines 5-6) and C) a photoinitiator (See column 1, lines 66-67); curing the coating composition by the action of UV light and post-curing by increasing the temperature of the coating (See column 6, lines 18-21).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 5-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn et al (US 5,229,252) in view of Koegler et al (US 5,916,979).

Flynn et al, as applied above, further teach that the blocked multifunctional isocyanate is selected to deblock generally at the cure temperature of the epoxy resin (See column 5, lines 2-5). *An example* of a suitable blocked multifunctional isocyanate is Σ -caprolactam-blocked isophorone (See column 5, lines 5-6).

Flynn et al fail to teach that the polyisocyanate of component B) may be blocked with a blocking agent comprising diisopropylamine.

Koegler et al teach that amides including lactams (e.g., beta-caprolactam) are functionally equivalent to secondary amines such as diisopropylamine for their use as blocking agents for polyisocyanates (See column 7, lines 18-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used various blocking agents including claimed diisopropylamine to block a multifunctional isocyanate in a process of Flynn et al depending on the cure temperature of an epoxy resin since Koegler et al teach that amides including lactams (e.g., beta-caprolactam) are functionally equivalent to secondary amines such as diisopropylamine for their use as blocking agents for polyisocyanates.

5. The prior art made of record and not relied upon is considered pertinent to applicant disclosure.

Fekete et al (US 3,256,226) teaches the structure of epoxy acrylates (See column 2, lines 25-44).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is (703) 605-1171. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elena Tsoy

Elena Tsoy
Examiner
Art Unit 1762

April 2, 2003